

Therapeutic aspects of premature rupture of membranes R. Trolp, J. Teuber, H.G. Hillemanns

Therapy of premature rupture of the membranes is often discussed in the last years. The main points picked up are indication and success of tocolysis and application of antibiotica. By a retrospective analysis we looked for these points and have drawn our consequences for therapy in future. During 1977 till 1979 total number of deliveries amounted to 5256 at the "Universitäts-Frauenklinik Freiburg". We observed in 222 cases premature of membranes, that means a frequency of 4,2 %.

Before beginning of therapy we examined the uterine cervix according to the pelvic score of Bishop and the Tocolysis-Index of Baumgarten. Success of tocolysis is given by the length of tocolysis in days and according to the Tocolysis-success score of Weidinger. Different groups are compared by the Wilcoxon-test.

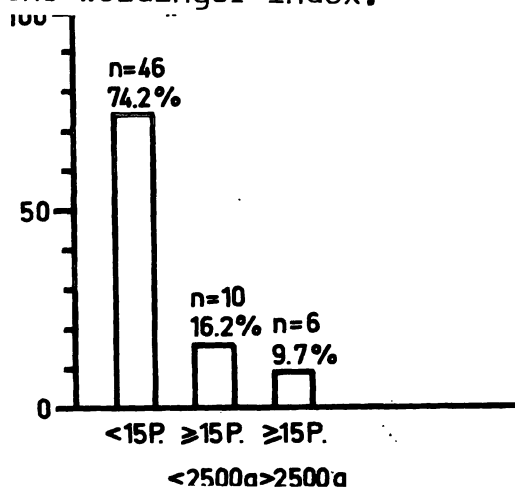
Age frequency of patients with premature rupture of the membranes shows no statistically difference to patients without obstetric complications.

At later weeks of pregnancy frequency of premature rupture of the membranes is very much higher than in the beginning of pregnancy.

We looked at the duration of tocolysis depending on pelvic score. There is no difference between the different points of pelvic score. There is also no difference between the cases before the 38th week of pregnancy and the cases at the 38th week.

Our study comprehends 68 patients with tocolysis therapy. In 74,2 % there was a failure of tocolysis therapy according to the Weidinger-tocolysis-success-score. Failure given by this score means less than 15 points. Success of therapy was accounted for 16,2 % in this group although birth weight was lower than 2 500 g.

Only 9,6 % of patients treated with β -mimetics delivered babies with more than 2 500 g and reached more than 15 points according to the Weidinger-index.



On figure 2 you see the period between rupture of the membranes and delivery.

The time-interval was in 62,2 % a few hours up to 24 hours. Only in 19,8 % the babies were delivered after more than four days.

Fig. 1: Success in tocolysis according to the Weidinger-tocolysis-success-score (68 cases).

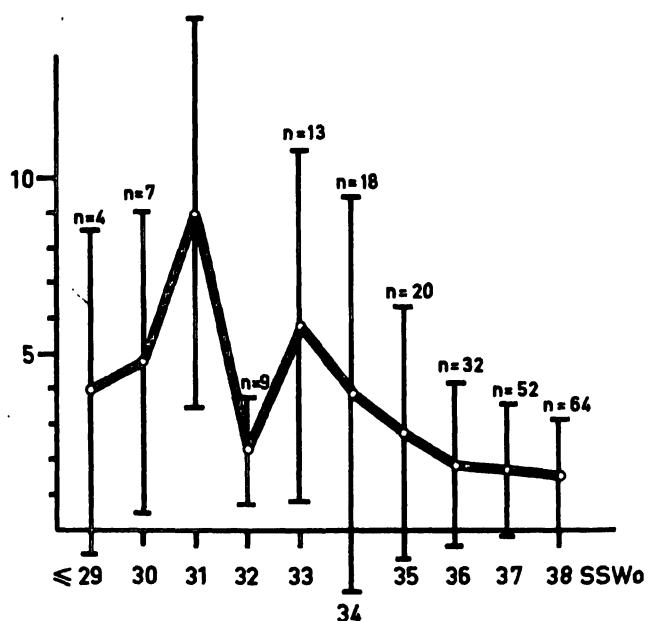


Fig. 2: Latency period between premature rupture of the membranes and the birth (222 cases).

Application of antibiotics is the other main point of therapeutic procedure. Before therapy we took a swab of uterine cervix in 196 patients. The main part namely 1183 swabs showed normal mixture of bacteria. Only in 6,6 % bacteria culture indicated pathogene germs such as *E. coli*, enterococcus etc. Streptococcus of group B was found in 4 % of total cultures.

43 % of patients were treated prophylactically with antibiotics.

Antibiotics were applicated after 24 hours for 3 to 5 days. Subfebrile temperatures were measured in three cases. No Amniotic -infection-syndrom was observed in this group.

27 Amniotic-infection-syndroms resulted in the group without antibiotic application. Therapy was successfull in all cases by Ampicillin or cephalosporines. We observed 6 cases of RDS in the group of antibiotic application. Only one of all babies died, which was born in the 29th week at a birhweight of 970 g.

Evaluating our facts we can recommend the following therapy concept in premature rupture of the membranes: Success of tocolysis amounts to 25 %, whilst tocolysis success without rupture of the membranes amounts to about 75 % given by the Weidinger-tocolysis-success-score. Rupture of the membranes indicates 4 points in tocolysis index of Baumgarten.

Success of tocolysis depends on tocolysis index. A failure in tocolysis therapy is to be expected at higher points than 5. Therefore only in a few cases tocolysis therapy is indicated in premature rupture of the membranes.

Prophylactic application of antibiotics is not a safe protection in each case against pediatric complications.

A sepsis had to be treated in three cases of this group.

Antibiotics were successfull in prevention of Amniotic-infection-syndrom except for two cases. Because of the high coincidence of Amniotic-infection-syndrom without prophylactic antibiotics we recommend application of antibiotics after 24 hours for about three to five days.

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